

Claims

What is claimed is:

1           1.     Apparatus for selecting one of two voltages to be output for use as  
2 a power supply, the apparatus comprising:

3               a first switch means connected to a first input;

4               a second switch means connected between the first input and an output  
5 and further connected to the first switch means; and

6               a third switch means connected between a second input and the output  
7 and further connected to the first and second switch means;

8               wherein when a first voltage is present at the first input, the first and  
9 second switches are in a conductive state and the third switch means is in a  
10 nonconductive state, such that only the first voltage is provided at the output;  
11 and

12               wherein when the first voltage is not present at the first input, the first  
13 and second switches are in a nonconductive state and the third switch is in a  
14 conductive state, such that a second voltage applied at the second input is  
15 provided at the output

1           2.     The apparatus of claim 1 wherein the first, second, and third  
2 switch means are transistors.

1           3.     The apparatus of claim 1 further comprising a voltage regulator  
2 connected between the second input and the third switch means.

1           4.     The apparatus of claim 1 wherein the first voltage is less than the  
2 second voltage.

**PATENT**

Attorney Docket No. DC-01611

1           5.     The apparatus of claim 1 wherein the first voltage is +3.3 volts  
2     and the second voltage is +5 volts.

1           6.     The apparatus of claim 1 wherein the first voltage is +5 volts and  
2     the second voltage is +3.3 volts.

9-14 1           7.     An adapter card including means for selecting one and only one  
2     of two voltages for use by the adapter card as a main power supply voltage, the  
3     adapter card further comprising:

4                 means responsive to application of a first voltage at a first input of the  
5     adapter card for using the first voltage as the main power supply and  
6     preventing a second voltage applied at a second input of the adapter card from  
7     being used as the main power supply; and

8                 means responsive to a first voltage not being applied to the first input of  
9     the adapter card for using the second voltage applied to the second input as the  
10    main power supply.

1           8.     The adapter card of claim 7 wherein the adapter card is a PCI  
2     adapter.

1           9.     The adapter card of claim 7 wherein the first voltage is less than  
2     the second voltage.

1           10.    The adapter card of claim 7 wherein the first voltage is +3.3 volts  
2     and the second voltage is +5 volts.

1           11.    The adapter card of claim 7 wherein the first voltage is +5 volts  
2     and the second voltage is +3.3 volts.

1           12.    The adapter card of claim 7 further comprising means for  
2 regulating the second voltage.

1           13.    The adapter card of claim 7 wherein the means responsive to the  
2 first voltage being present at the first input comprises at least one transistor.

1           14.    The adapter card of claim 7 wherein the means responsive to the  
2 voltage not being present at the first input comprises at least one transistor.

1           15.    A computer system comprising a CPU, a power supply, and  
2 memory and further comprising a plug-in adapter including a power selector  
3 circuit connected to the power supply for selecting one of two power supply  
4 voltages for use by the adapter as a main power supply, the power selector  
5 circuit further comprising:

6               a first switch means connected to a first input for receiving a first  
7 voltage from the power supply;

8               a second switch means connected between the first input and an output  
9 and further connected to the first switch means, wherein a voltage at the  
10 output is used as the main power supply of the adapter; and

11              a third switch means connected between a second input for receiving a  
12 second voltage from the power supply and the output and further connected to  
13 the first and second switch means;

14              wherein when a first voltage is present at the first input, the first and  
15 second switches are in a conductive state and the third switch means is in a  
16 nonconductive state, such that only the first voltage is provided at the output;  
17 and

18            wherein when the first voltage is not present at the first input, the first  
19            and second switches are in a nonconductive state and the third switch is in a  
20            conductive state, such that a second voltage applied at the second input is  
21            provided at the output.

1            16.    The computer system of claim 15 wherein the first, second, and  
2            third switch means are transistors.

1            17.    The computer system of claim 15 wherein the power supply  
2            selector further comprises a voltage regulator connected between the second  
3            input and the third switch means.

1            18.    The computer system of claim 15 wherein the first voltage is less  
2            than the second voltage.

1            19.    The computer system of claim 15 wherein the first voltage is +3.3  
2            volts and the second voltage is +5 volts.

1            20.    The computer system of claim 15 wherein the first voltage is +3.3  
2            volts and the second voltage is +5 volts.

21 24  
1            21.    A method of selecting one of two voltages to be provided at an  
2            output of a power selector, the method comprising:  
3            . . . determining whether a first voltage is applied at a first input of the  
4            power selector;  
5            if a first voltage is detected at the first input, providing the first voltage  
6            at the power selector output and preventing a second voltage applied at a

7 second input of the power selector from being provided at the power selector  
8 output;

9 if a first voltage is not detected at the first input, providing the second  
10 voltage applied at the second input at the power selector output.

1 22. The method of claim 21 further comprising regulating the second  
2 voltage.

1 23. The method of claim 21 wherein the first voltage is +5 volts and  
2 the second voltage is +3.3 volts.

1 24. The method of claim 21 wherein the first voltage is +3.3 volts  
2 and the second voltage is +5 volts.

1 25. Apparatus for selecting one of two voltages to be output for use as  
2 a power supply, the apparatus comprising:

3 a first switch means connected to a first input;

4 a second switch means connected between the first input and an output  
5 and further connected to the first switch means;

6 a third switch means connected between a second input and the output  
7 and further connected to the first and second switch means; and

8 first and second pairs of user-settable jumpers;

9 wherein when the first pair of jumpers is set and a first voltage is  
10 present at the first input, the first and second switches are in a conductive  
11 state and the third switch means is in a nonconductive state, such that only  
12 the first voltage is provided at the output;

13 wherein when the first pair of jumpers is set and the first voltage is not  
14 present at the first input, the first and second switches are in a nonconductive

15 state and the third switch is in a conductive state, such that a second voltage  
16 applied at the second input is provided at the output;

17 wherein when the second pair of jumpers is set and the second voltage is  
18 present at the second input, the first and second switches are in a conductive  
19 state and the third switch means is in a nonconductive state, such that only  
20 the second voltage is provided at the output; and

21 wherein when the second pair of jumpers is set and the second voltage is  
22 not present at the second input, the first and second switches are in a  
23 nonconductive state and the third switch is in a conductive state, such that the  
24 first voltage applied at the first input is provided at the output.

1 26. The apparatus of claim 25 wherein the first, second, and third  
2 switch means are transistors.

1 27. The apparatus of claim 25 further comprising a voltage regulator  
2 connected between the second input and the third switch means.

1 28. The apparatus of claim 25 wherein the first voltage is +5 volts  
2 and the second voltage is +3.3 volts.

1 29. The apparatus of claim 25 wherein the first voltage is +3.3 volts  
2 and the second voltage is +5 volts.

1 30. A method of selecting one of two voltages to be provided at an  
2 output of a power selector, the method comprising:

3 determining whether a first pair of user-settable jumpers is set;  
4 if the first pair of user-settable jumpers is set, determining whether a  
5 first voltage is applied at a first input of the power selector and if the first

6 voltage is detected at the first input, providing the first voltage at the power  
7 selector output and preventing a second voltage applied at a second input of  
8 the power selector from being provided at the power selector output and if the  
9 first voltage is not detected at the first input, providing the second voltage  
10 applied at the second input at the power selector output.

1 31. The method of claim 30 further comprising:  
2 if the first pair of user-settable jumpers is not set, determining whether  
3 a second pair of user-settable jumpers is set; and  
4 if the second set of user-settable jumpers is set, determining whether a  
5 second voltage is applied at a second input of the power selector and if the  
6 second voltage is detected at the first input, providing the second voltage at the  
7 power selector output and preventing a first voltage applied at a second input  
8 of the power selector from being provided at the power selector output and if  
9 the second voltage is not detected at the second input, providing the first  
10 voltage applied at the first input at the power selector output.

1 32. The method of claim 30 further comprising regulating the second  
2 voltage.

1 33. The method of claim 30 wherein the first voltage is +3.3 volts  
2 and the second voltage is +5 volts.